EXAMINER'S AMENDMENT

1. The remarks and amendments filed 11 August 2011 have been entered. Claims 8-16, 30-37, and 86 are pending.

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Chris Perkins on 20 October 2011.

3. The application has been amended as follows:

In the claims:

Claim 1 has been re-written as follows:

An isolated nucleic acid molecule encoding a mutant or variant sodium channel, voltage gated, type 1, alpha subunit (SCN1A) polypeptide, wherein the nucleic acid comprises a sequence selected from the group consisting of:

A) SEQ ID NO:2, which carries a c.1152G→A mutation,

B) SEQ ID NO:3, which carries a c.1183G→C mutation,

C) SEQ ID NO:4, which carries a c.1207T→C mutation,

D) SEQ ID NO:5, which carries a c.1237T→A mutation, and

E) SEQ ID NO:6, which carries a c.1265T→A mutation,

the nucleotide positions being numbered according to SEQ ID NO:96.

Cancel claims 9, 12, 14.

In claim 10, final line, delete "and 8"

In claim 15, final line, delete "and 8"

In claim 16, final line, delete "and 8"

Claim 33 has been re-written as follows:

An isolated cell comprising at least one mutant sodium channel, voltage gated, type 1, alpha subunit (SCN1A) polypeptide, wherein the amino acid sequence is selected from the group consisting of:

A) a sequence consisting of SEQ ID NO:74, which comprises a W384X mutation,

B) a sequence comprising SEQ ID NO:75, which comprises a A395P mutation,

C) a sequence comprising SEQ ID NO:76, which comprises a F403L mutation,

D) a sequence comprising SEQ ID NO:77, which comprises a Y413N mutation, and

E) a sequence comprising SEQ ID NO:78, which comprises a V422E mutation,

the amino acid residues being numbered according to SEQ ID NO:97.

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Nabbout et al. June 2003 (Neurology 60:1961-1967). The reference teaches c5339T→C mutation, encoding a M1780T substitution in SCN1A; see for example Table 1. This is pertinent to claims 8-10, 15-16, and 33 as they were presented on 11 August 2011.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL E. KOLKER whose telephone number is (571)272-3181. The examiner can normally be reached on Mon - Fri 8:30AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Stucker can be reached on (571) 272-0911. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/DANIEL E. KOLKER/
Primary Examiner, Art Unit 1649
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